AMENDMENTS TO THE CLAIMS

1. (Canceled).

2. (Currently amended) ~~A method according to claim 1, in which during step c),~~ A method of measuring in real time a radiological radiation dose absorbed by a region under inspection subjected to a flux of radiological radiation, the method comprising the steps consisting in:

a) detecting the incident radiation at at least one point of the region under inspection using an X-ray transparent dosimeter comprising at least a first bundle of measurement optical fibers containing at least one fiber placed in said region under inspection and adapted to generate a light signal on receiving radiological radiation;

b) measuring said light signal away from the region under inspection after it has been transmitted along the measurement optical fiber; and

c) determining the dose of radiological radiation received by said measurement optical fiber on the basis of said light signal and a position where the radiological radiation is detected along said measurement optical fiber [[is determined]], [[and]] the dose of radiological radiation received at said position [[is]] being calculated as a function of at least one parameter F^0_k specific to said optical fiber.

3. (Currently amended) A method according to claim 2, in which at least one parameter F^0_k is obtained by a preliminary calibration step during which a dose of radiation is detected at at least one point of the region under inspection by means of a radiation detector that is not X-ray transparent.

4. (Original) A method according to claim 2, in which step b) is performed using a detector device comprising at least one cell, and in which the parameter F^0_k takes account of at least the optical fiber and at least one cell of the detector device associated with said fiber.

5. (Canceled)

6. (Currently amended) A method according to claim [[5]] 26, in which steps b) and c) are performed, for at least one overlap point between a first measurement optical fiber of the first bundle and a second measurement optical fiber of the second bundle, on the basis of the radiation detected at least by the first optical fiber of the fibers of the first bundle, of the radiation detected by the second optical fiber, and of the position of said overlap point along the second optical fiber.

7. (Currently amended) A method according to claim [[5]] 26, in which the steps b) and c) are performed, at least for an overlap point between a first measurement optical fiber of the first bundle and a second measurement optical fiber of the second bundle, on the basis of the radiation detected at least by the second optical fiber of the fibers in the second bundle, of the radiation detected by the first optical fiber, and of the position of said overlap point along the first optical fiber.

8. (Currently amended) A method according to claim [[1]] 2, further comprising a step d) consisting in emitting an alarm signal if the accumulated received radiation dose exceeds a pre-established threshold.

9. (Currently amended) A method according to claim [[1]] 2, further comprising a step e) consisting in displaying on a screen the dose of radiation received at least one point of the region under inspection.

10. (Currently amended) A method according to claim 9, further comprising a step f) consisting in detecting the radiation transmitted through the region under inspection, and in displaying on a screen [[the]] a radiographic image as detected in this way.

11. (Previously presented) A method according to claim 10, in which the radiographic image obtained in step f) and the image of the received radiation dose as obtained in step e), are displayed on the same screen.

12. (Currently amended) A method according to claim [[1]] 2, in which at least steps a), b), and c) are repeated for a plurality of points of the region under inspection, enabling a map to be obtained of the dose received by the region under inspection.

13. (Currently amended) A method according to claim [[1]] 2, in which at least steps a), b), and c) are repeated for a plurality of measurement time intervals enabling time variation in the dose received at at least one point of the region under inspection to be obtained.

14. (Previously presented) A method according to claim 13, in which the radiation is generated by a pulsed source, and the repetition of at least steps b) and c) is synchronized with said source.

15. (Currently amended) A method according to claim [[1]] 2, in which at least steps a), b) and c) are performed for at least two angles of incidence of the radiation, and in which combined use is made of the received radiation doses as determined in step c) for each of the angles of incidence.

16. (Canceled).

17. (Currently amended) ~~A device according to claim 16,~~ A device for real-time measurement of a dose of radiological radiation absorbed by a region under inspection subjected to a flux of radiological radiation, the device comprising: an X-ray transparent

dosimeter comprising at least a first bundle of measurement optical fibers containing at least one fiber placed in said region under inspection and adapted to generate a light signal on receiving radiological radiation in order to detect the incident radiation at least one point of the region under inspection; measurement means for measuring said light signal away from the region under inspection after the light signal has been transmitted along the measurement optical fiber; and means for determining the dose of radiological radiation received by said measurement optical fiber on the basis of said light signal; and

in which the light signal is transmitted to a detector device used for measuring it, transmission taking place along the measurement optical fiber used for detecting the radiation, said fiber having a first end, and along at least one clear optical fiber extending from a first end of the clear fiber that is connected to the first end of the measurement optical fiber to a second end of the clear fiber, which second end is placed facing the detector device, and in which the means for determining the dose of radiation received at said point of said measurement optical fiber comprise a control unit containing parameters that are specific to the optical fibers used.

18. (Currently amended) ~~A device according to claim 16,~~ A device for real-time measurement of a dose of radiological radiation absorbed by a region under inspection subjected to a flux of radiological radiation, the device comprising: an X-ray transparent dosimeter comprising at least a first bundle of measurement optical fibers containing at least one fiber placed in said region under inspection and adapted to generate a light signal on receiving radiological radiation in order to detect the incident radiation at least one point of the region under inspection; measurement means for measuring said light signal away from the region under inspection after the light signal has been transmitted along the measurement optical fiber; and means for determining the dose of radiological radiation received by said measurement optical fiber on the basis of said light signal; and

in which the first fiber bundle is disposed along a first direction and in which the dosimeter further comprises a second bundle of optical fibers comprising at least one second measurement optical fiber disposed in a second direction forming an angle with the first direction.

19. (Currently amended) A device according to claim [[16]] 17, in which each measurement optical fiber is comprised between two optically-insulating sheets.

20. (Currently amended) A device according to claim [[16]] 17, in which each measurement optical fiber is molded in a reflective resin comprised between two optically-insulating sheets.

21. (Currently amended) ~~A device according to claim 16,~~ A device for real-time measurement of a dose of radiological radiation absorbed by a region under inspection subjected to a flux of radiological radiation, the device comprising: an X-ray transparent dosimeter comprising at least a first bundle of measurement optical fibers containing at least one fiber placed in said region under inspection and adapted to generate a light signal on receiving radiological radiation in order to detect the incident radiation at least one point of the region under inspection; measurement means for measuring said light signal away from the region under inspection after the light signal has been transmitted along the measurement optical fiber; and means for determining the dose of radiological radiation received by said measurement optical fiber on the basis of said light signal; and

in which at least one bundle of optical fibers is integrated in an examination table.

22. (Currently amended) A radiological installation comprising: an X-ray transparent dosimeter comprising at least one bundle having at least one measurement optical fiber placed in a region under inspection, and adapted to generate a light signal on receiving radiological radiation, so as to enable the incident radiation to be detected at least one point of said region under inspection; measurement means for measuring said light signal away from the region under inspection after it has been transmitted along the measurement optical fiber; and means for determining the dose of radiological radiation received by said measurement optical fiber on the basis of said light signal, and further comprising: a radiation generator; a radiographic detector; and means for displaying the radiation dose received, said

means also enabling radiographic images to be displayed of the region under inspection as supplied by the radiographic detector[[.]];an examination table; and

wherein said at least one bundle of measurement optical fibers is integrated in the examination table.

23. (Canceled)

24. (Canceled)

25. (Currently amended) An installation according to claim [[24]] 22, further comprising at least one additional device that is not integrated in the examination table, for real-time measurement of a dose of radiological radiation absorbed by a region under inspection subjected to a flux of radiological radiation, the additional device comprising: at least an additional first bundle comprising at least one additional first measurement optical fiber placed in said region under inspection and adapted to generate an additional light signal on receiving radiological radiation, in order to detect the incident radiation at least one point in said region under inspection; additional measurement means for measuring said additional light signal away from the region under inspection after it has been transmitted along the additional measurement optical fiber; and additional means for determining the dose of radiological radiation received by said additional measurement optical fiber on the basis of said additional light signal.

26. (New) A method of measuring in real time a radiological radiation dose absorbed by a region under inspection subjected to a flux of radiological radiation, the method comprising the steps consisting in:

a) detecting the incident radiation at at least one point of the region under inspection using an X-ray transparent dosimeter comprising at least a first bundle of measurement optical fibers extending in a first direction and containing at least one fiber

placed in said region under inspection and adapted to generate a light signal on receiving radiological radiation, and a second optical fiber bundle containing at least one second measurement optical fiber adapted to generate a light signal on receiving radiological radiation, and extending along a second direction forming an angle with the first direction;

b) measuring said light signal away from the region under inspection after it has been transmitted along the measurement optical fiber; and

c) determining the dose of radiological radiation received by said measurement optical fiber on the basis of said light signal.

27. (New) A device according to claim 18, in which each measurement optical fiber is comprised between two optically-insulating sheets.

28. (New) A device according to claim 18, in which each measurement optical fiber is molded in a reflective resin comprised between two optically-insulating sheets.